

**AMENDMENTS TO THE CLAIMS**

Please cancel claims 1-19 and 21-31 and amend the claims as follows:

1-19. (Cancelled)

20. (Currently Amended)      ~~[[The]]~~ A system of claim 11 comprising:

a process chamber;

a gas delivery system adapted to deliver a precursor from a vessel containing the precursor to the process chamber via a process gas produced by flowing a first carrier gas into the vessel and combining the first carrier gas with a second carrier gas flowing through a bypass around the vessel;

a precursor monitoring apparatus disposed between the process chamber and the vessel, wherein the precursor monitoring apparatus has a gas analyzer to generate a signal indicative of a concentration of the precursor in the process gas or the signal is indicative of the flow rate of the precursor, wherein the gas analyzer comprises an ultrasonic transducer and a mass flow meter; and

an integral controller to receive the signal.

21-41. (Cancelled)